

What is claimed is:

1. A method of improving image quality, the method comprising:  
receiving image data comprising a plurality of color planes, the color planes including at least one black separation and at least one non-black separation, wherein each color separation comprises an array of separation pixels, each separation pixel having at least two states, a first state corresponding to depositing no ink and a second state corresponding to depositing ink;  
identifying a stray pixel pattern within the image data, the stray pixel pattern including a stray separation pixel which corresponds to a misplaced dot in a dot pattern; and  
modifying the image data corresponding to the stray pixel pattern, the modification of the image data including setting the stray separation pixel to the first state and setting a second separation pixel within the stray pixel pattern to the second state.

2. The method of claim 1, wherein identifying a stray pixel pattern within the image data identifies one of several predetermined pixel patterns within a first color separation and wherein setting a second separation pixel within the stray pixel pattern to the second state comprises changing the image data in the first color separation to a pixel pattern that results in a dot pattern corresponding to the stray pixel pattern identified.

3. The method of claim 1, wherein identifying a stray pixel pattern within the image data identifies one of several predetermined pixel patterns within the black separation and wherein setting a second separation pixel within the stray pixel pattern to the second state comprises setting each of the separation pixels in the non-black separations corresponding to the stray separation pixel to the second state.

4. The method of claim 1, wherein identifying a stray pixel pattern and modifying the image data corresponding to the stray pixel pattern are determined in accordance with

$$K2 = K \& (R1 \mid L1 \mid \sim((\sim L3 \& \sim L4 \& L5 \& L6) \mid (\sim L2 \& L4 \& (L3 \mid (\sim L3 \& L5)))))$$

$$StrayPixels = K2 \wedge K$$

$$C = C \mid StrayPixels;$$

$$M = M \mid StrayPixels;$$

$$Y = Y \mid StrayPixels;$$

wherein  $K$  is an  $n$ -bit word of image data for the black separation,  $R1$  is the  $n$ -bit word of image data left shifted by one pixel,  $L1$ ,  $L2$ ,  $L3$ ,  $L4$ ,  $L5$ , and  $L6$  are the  $n$ -bit word of image data right shifted by 1, 2, 3, 4, 5 and 6 pixels, respectively,  $C$ ,  $M$  and  $Y$  are the  $n$ -bit word of image data for cyan, magenta and yellow separations,  $\sim$  is a logical NOT,  $\&$  is a logical AND,  $\mid$  is a logical OR, and  $\wedge$  is an exclusive OR.

5. The method of claim 1, wherein identifying a stray pixel pattern within the image data identifies a pixel pattern comprising a pair of non-black pixels separated by a predetermined number of black only pixels and wherein setting a second separation pixel within the stray pixel pattern to the second state comprises setting each of the separation pixels in the non-black separations corresponding to the first black only pixel following the first non-black pixel to the second state.

6. The method of claim 5, wherein setting a second separation pixel within the stray pixel pattern to the second state further comprises setting a non-black separation pixel corresponding to the second black only pixel following the first non-black pixel to the second state.

7. A method of improving the quality of text output, the method comprising:

receiving image data comprising a plurality of pixels, each pixel having at least two states, a first state corresponding to depositing no ink and a second state corresponding to depositing ink;

identifying a stray pixel pattern within the image data, the stray pixel pattern including a stray pixel corresponding to a misplaced dot in a dot pattern; and

modifying the image data corresponding to the stray pixel pattern to match a second stray pixel pattern, the second stray pixel pattern including a second stray pixel corresponding to a misplaced dot in a dot pattern, the second stray pixel pattern being selected to produce a dot pattern corresponding to the stray pixel pattern.

8. The method according to claim 7, wherein modifying the image data corresponding to the stray pixel pattern comprises:

setting the stray separation pixel to the first state; and

changing a second pixel within the stray pixel pattern from the first state to the second state, the second pixel being selected to produce a dot pattern corresponding to the stray pixel pattern.

9. The method according to claim 8, wherein the received image data comprises a raster image and the second pixel is adjacent to the stray pixel in the raster image.

10. The method according to claim 8, wherein the stray pixel pattern includes at least one pattern from 11010, 110010, 1100010 and 11000010.

11. A method of improving image quality, the method comprising:  
receiving image data comprising a plurality of color planes, the color planes including a black separation and at least two non-black separations, wherein each color separation comprises an array of separation pixels, each separation pixel having at least two states, a first state corresponding to depositing no ink and a second state corresponding to depositing ink;  
identifying a stray pixel pattern within the image data, the stray pixel pattern comprising a pair of non-black separation pixels having a second state separated by a predetermined number of black separation pixels having a second state;  
modifying the image data corresponding to the first black separation pixel following the first non-black separation pixel by setting the black separation pixel to the first state and setting the separation pixels for the non-black separations to the second state; and  
modifying the image data corresponding to the second black separation following the first non-black pixel by pixel setting a separation pixel for a non-black separation to the second state.

12. The method of claim 11, wherein the predetermined number of number of black separation pixels having a second state separating the pair of non-black separation pixels is selected from 3 to 7 pixels.